Changes made in the C4 PGE16 LST code

For the improvement of the quality

1. Lake pixels in clear-sky at MOD35 confidence 66% and higher are processed (per suggestions from Simon Hook and others).
2. Use the MODIS BRDF product (MOD43B1C) as input.
3. the range of viewing zenith angle separated into 5 sub-ranges (0-24, 24-38, 38-49, 49-58, 58-65) instead of 4.
4. A split-window method was incorporated into the day/night algorithm to ensure that the retrieved emissivities can be used by split-window algorithms.

For the improvement of production rate and projection

5. Parallel processing for data of odd days and even days so that the production rate may be doubled.
6. Add an option for the SIN projection (as default).

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Remaining Known Issues

1. Input granules were not complete everyday in the 4th science test for the period of 2001209-216. What will be the scenario in the formal C4 reprocessing?
2. V4.1.5 PGE16 code delivered on 12/16/02 for a few updates of QA bit values in MOD11B1.

Changes are expected in the future

1. The Terra and Aqua MODIS data will be used jointly through MxD11UPD in day/night LST algorithm (most likely in C4).
2. Topographic (averaged slope and aspect in 1km & 5km grids) effects will be considered in the LST algorithm to improve the quality and QA (in C5).